

the local modem, after detecting the call waiting signaling, directs the remote modem to enter the hold mode then temporarily relinquishes access to the telephone network;

wherein the remote modem remains in the hold mode for no longer than a first time period, and wherein said first time period is communicated by the local modem to the remote modem.

7. (Amended) A [The] communication system [of claim 1] having a telephone network that delivers call waiting signaling upon detecting an incoming call, the communication system comprising:

a remote modem that has a hold mode;

a local modem communicatively coupled to the remote modem via shared access to the telephone network; and

the local modem, after detecting the call waiting signaling, directs the remote modem to enter the hold mode then temporarily relinquishes access to the telephone network;

wherein the local modem uses a v.42 protocol to set up a secondary channel for signaling the remote modem regarding the hold mode.

32. (Amended) A communication device for communication with a remote device over a communication channel, said communication device comprising:

a receiver capable of receiving an attention signal;

a decoder capable of decoding said attention signal;

a transmitter capable of transmitting a hold request to said remote device in response to said attention signal;

wherein a handset is in communication with said communication device, and wherein said attention signal is generated as a result of said handset going off-hook, and wherein

said communication between said devices over said communication channel ceases for a period of time after transmitting said hold request.

44. (Amended) A communication method for use between a first device and a second device in communication over a communication channel, said first device being in communication with a handset, said communication method comprising the steps of:

[receiving an attention signal by said first device;]

[decoding said attention signal] detecting said handset going off-hook;

transmitting a hold request to said second device in response to said [attention signal] handset going off-hook; and

ceasing said communication with said second device over said communication channel by said first device for a period of time.

66. (Amended) A communication method for use between a first device and a second device in communication over a communication channel, said second device being in communication with an upper layer protocol, said communication method comprising the steps of:

receiving a hold request by said second device;

acknowledging said hold request by said second device;

[specifying a hold period by said second device; and]

ceasing said communication with said first device over said communication channel by said second device for [said] a hold period; and

keeping said upper layer protocol alive by said second device during said hold period.

--69. The communication system of claim 1, wherein, after communicating the first time period, the local modem communicates a second time period to the remote modem to extend the hold mode.--

--70. The communication system of claim 32, wherein a dial tone is provided to said handset after said communication between said devices over said communication channel ceases.--

--71. A communication method for use between a first device and a second device in communication over a communication channel, said first device being in communication with an upper layer protocol, said communication method comprising the steps of:

- transmitting a hold request by said first device;
- receiving an acknowledgment of said hold request from said second device;
- ceasing said communication with said second device over said communication channel by said first device for a hold period; and
- keeping said upper layer protocol alive by said first device during said hold period.--

--72. The method of claim 71, wherein said hold request includes said hold period.--

--73. A first modem capable of communicating with a second modem over a communication channel, a portion of said communication channel existing over a telephone line between said first modem a central office, said first modem comprising:

- a receiver capable of receiving a relinquishment request, while said telephone line is in use by said first modem for communication with said second modem, to relinquish said use of said telephone line; and

a transmitter capable of transmitting a hold request to said second modem to place said communication between said modems on hold;

wherein said communication between said modems is placed on hold and said use of said telephone line is relinquished, and wherein a dial tone is received over said telephone line after said communication between said modems is placed on hold.--

--74. The first modem of claim 73, wherein a handset shares said telephone line with said first modem, and wherein said relinquishment request is received as a result of said handset going off-hook.--

--75. The first modem of claim 73, wherein said relinquishment request is received as a result of instructing said first modem to dial a number.--

--76. The first modem of claim 73, wherein a third device shares said telephone line with said first modem, and wherein said relinquishment request is received from said third device.--

--77. The first modem of claim 76, wherein said third device places a call on said telephone line.--

--78. The first modem of claim 73, wherein said dial tone is received as a result of using a three-way call feature supported by said central office.--

--79. A method of sharing a telephone line by a first modem capable of communicating with a second modem over a communication channel, a portion of said communication channel existing over said telephone line between said first modem a central office, said method comprising:

receiving a relinquishment request, while said telephone line is in use by said first modem for communication with said second modem, to relinquish said use of said telephone line; and

transmitting a hold request to said second modem to place said communication between said modems on hold;

placing said communication between said modems on hold;

relinquishing said use of said telephone line;

receiving a dial tone over said telephone line.--

--80. The method of claim 79, wherein a handset shares said telephone line with said first modem, and wherein said relinquishment request is received as a result of said handset going off-hook.--

--81. The method of claim 79, wherein said relinquishment request is received as a result of instructing said first modem to dial a number.--

--82. The method of claim 79, wherein a third device shares said telephone line with said first modem, and wherein said relinquishment request is received from said third device.--

--83. The method of claim 82, wherein said third device places a call on said telephone line.--

--84. The method of claim 79, wherein said dial tone is received as a result of using a three-way call feature supported by said central office.--

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CLEAN SHEETS

1. A communication system having a telephone network that delivers call waiting signaling upon detecting an incoming call, the communication system comprising:

a remote modem that has a hold mode;

a local modem communicatively coupled to the remote modem via shared access to the telephone network; and

the local modem, after detecting the call waiting signaling, directs the remote modem to enter the hold mode then temporarily relinquishes access to the telephone network;

wherein the remote modem remains in the hold mode for no longer than a first time period, and wherein said first time period is communicated by the local modem to the remote modem.

7. A communication system having a telephone network that delivers call waiting signaling upon detecting an incoming call, the communication system comprising:

a remote modem that has a hold mode;

a local modem communicatively coupled to the remote modem via shared access to the telephone network; and

the local modem, after detecting the call waiting signaling, directs the remote modem to enter the hold mode then temporarily relinquishes access to the telephone network;

wherein the local modem uses a v.42 protocol to set up a secondary channel for signaling the remote modem regarding the hold mode.

32. A communication device for communication with a remote device over a communication channel, said communication device comprising:

a receiver capable of receiving an attention signal;

a decoder capable of decoding said attention signal;

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a transmitter capable of transmitting a hold request to said remote device in response to said attention signal;

wherein a handset is in communication with said communication device, and wherein said attention signal is generated as a result of said handset going off-hook, and wherein said communication between said devices over said communication channel ceases for a period of time after transmitting said hold request.

44. A communication method for use between a first device and a second device in communication over a communication channel, said first device being in communication with a handset, said communication method comprising the steps of:

detecting said handset going off-hook;

transmitting a hold request to said second device in response to said handset going off-hook; and

ceasing said communication with said second device over said communication channel by said first device for a period of time.

66. A communication method for use between a first device and a second device in communication over a communication channel, said second device being in communication with an upper layer protocol, said communication method comprising the steps of:

receiving a hold request by said second device;

acknowledging said hold request by said second device;

ceasing said communication with said first device over said communication channel by said second device for a hold period; and

keeping said upper layer protocol alive by said second device during said hold period.

69. The communication system of claim 1, wherein, after communicating the first time period, the local modem communicates a second time period to the remote modem to extend the hold mode.

70. The communication system of claim 32, wherein a dial tone is provided to said handset after said communication between said devices over said communication channel ceases.

71. A communication method for use between a first device and a second device in communication over a communication channel, said first device being in communication with an upper layer protocol, said communication method comprising the steps of:

transmitting a hold request by said first device;

receiving an acknowledgment of said hold request from said second device;

ceasing said communication with said second device over said communication channel by said first device for a hold period; and

keeping said upper layer protocol alive by said first device during said hold period.

72. The method of claim 71, wherein said hold request includes said hold period.

73. A first modem capable of communicating with a second modem over a communication channel, a portion of said communication channel existing over a telephone line between said first modem and a central office, said first modem comprising:

a receiver capable of receiving a relinquishment request, while said telephone line is in use by said first modem for communication with said second modem, to relinquish said use of said telephone line; and

a transmitter capable of transmitting a hold request to said second modem to place said communication between said modems on hold;

wherein said communication between said modems is placed on hold and said use of said telephone line is relinquished, and wherein a dial tone is received over said telephone line after said communication between said modems is placed on hold.

74. The first modem of claim 73, wherein a handset shares said telephone line with said first modem, and wherein said relinquishment request is received as a result of said handset going off-hook.

75. The first modem of claim 73, wherein said relinquishment request is received as a result of instructing said first modem to dial a number.

76. The first modem of claim 73, wherein a third device shares said telephone line with said first modem, and wherein said relinquishment request is received from said third device.

77. The first modem of claim 76, wherein said third device places a call on said telephone line.

78. The first modem of claim 73, wherein said dial tone is received as a result of using a three-way call feature supported by said central office.

79. A method of sharing a telephone line by a first modem capable of communicating with a second modem over a communication channel, a portion of said communication channel existing over said telephone line between said first modem a central office, said method comprising:

receiving a relinquishment request, while said telephone line is in use by said first modem for communication with said second modem, to relinquish said use of said telephone

line; and

transmitting a hold request to said second modem to place said communication between said modems on hold;

placing said communication between said modems on hold;

relinquishing said use of said telephone line;

receiving a dial tone over said telephone line.

80. The method of claim 79, wherein a handset shares said telephone line with said first modem, and wherein said relinquishment request is received as a result of said handset going off-hook.

81. The method of claim 79, wherein said relinquishment request is received as a result of instructing said first modem to dial a number.

82. The method of claim 79, wherein a third device shares said telephone line with said first modem, and wherein said relinquishment request is received from said third device.

83. The method of claim 82, wherein said third device places a call on said telephone line.

84. The method of claim 79, wherein said dial tone is received as a result of using a three-way call feature supported by said central office.